

EE 2920

Dr. Johnson

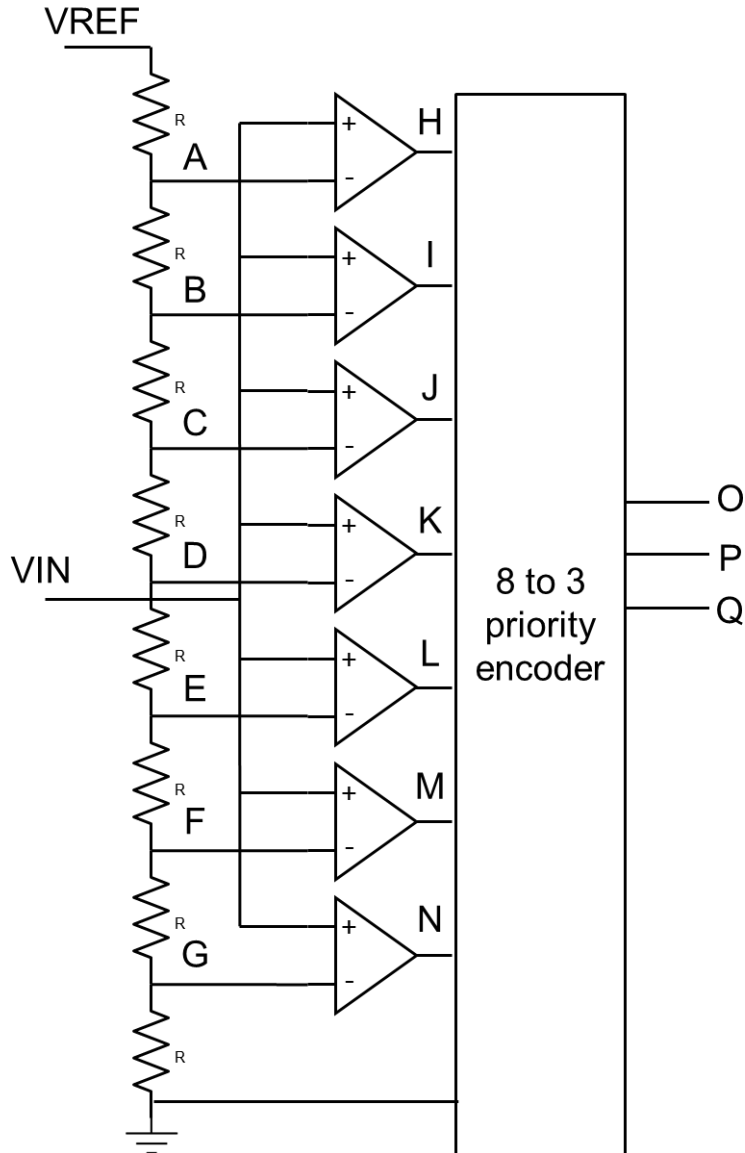
Homework 8

1) Using a 8 bit A/D with an 8 bit register, $V_{refH} = 3.1 \text{ V}$, $V_{refL} = 0 \text{ V}$
 fill in the table below

50pts

Input Voltage (absolute)	Output Code	D/A Output Voltage
	HEX	
0.013		
 	25	
 		0.775
1.3		
1.82		
 	B9	
 		2.749
3		
3.05		
 	FF	
4.5		

2) Below is a simplified schematic for a 3 bit Flash ADC. Determine how this ADC operates and provide voltages for each node given the voltages below 50pts



VREF: 3.3 V

VIN: 1.5 V

voltage	
A	V
B	V
C	V
D	V
E	V
F	V
G	V

logic level	
H	
I	
J	
K	
L	
M	
N	

logic level

O	
P	
Q	